FP-004

PROGRAMMER

Operation Manual

© 2008 International Currency Technologies Corporation
V. 5.0 Part Number : H6051E-R

International Currency Technologies Corp.

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1. Specification :

1. Voltage : DC12V~24V
2. Current : 100mA
3. Power Consumption : 1.2W
4. Operating Temperature : 0°C~ 60°C
5. Storage Temperature : -20°C~70°C
6. Operating Humidity : 0% ~ 85% (RH)

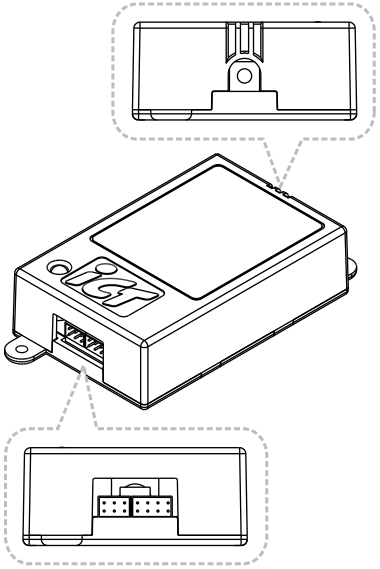


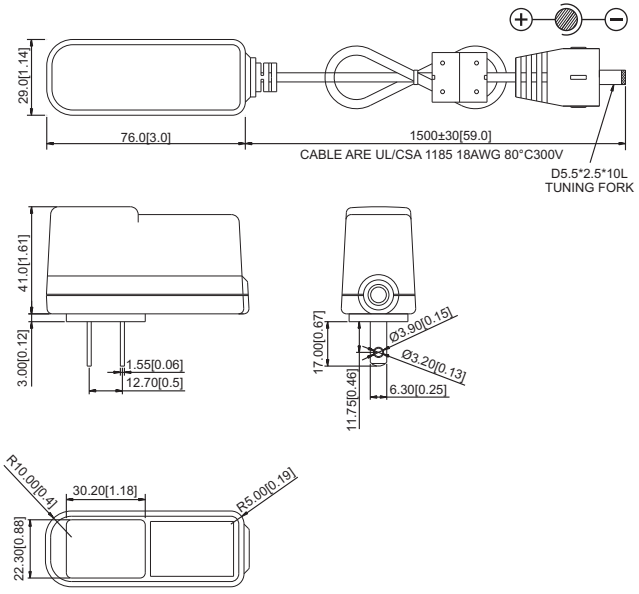
Figure 1

Optional

❖ Transformer Specification :

1. Model: CIL-R2014
2. Input : 100-240V 50/60Hz 0.5A

Figure 2



Unit: mm [inch]

The transformer is required in test mode.

2. Installation :

2-1. Harnesses Application

Table.1

Model	Harnesses	Usage	Page
SV7E	WEL-RF302	Power & *Data Comm.	8
	WEL-RF303	*Data Comm.	9
V series	WEL-RF302	Power & *Data Comm.	8
	WEL-RF303	*Data Comm.	9
L series	WEL-RF302	Power & *Data Comm.	8
	WEL-RF303	*Data Comm.	9
S7ER	WEL-RF302	Power & *Data Comm.	8
	WEL-RF303	*Data Comm.	9
R83	WEL-RF302	Power & *Data Comm.	8
	WEL-RF303	*Data Comm.	9
TAO series (TAO-A/V)	WEL-RF302	Power & *Data Comm.	8
	WEL-RF303	*Data Comm.	9
S7A/V7A	WEL-RF302	Power & *Data Comm.	8
	WEL-RF303	*Data Comm.	9
L77F	WEL-RF302	Power & *Data Comm.	8
	WEL-RF303	*Data Comm.	9
UCA series	WEL-RF302	Power & *Data Comm.	8
	WEL-RF303	*Data Comm.	9
Fortune	WEL-RF302	Power & *Data Comm.	8
	WEL-RF303	*Data Comm.	9

*Data Comm. : Data Communication.

Table.2

Model	Harnesses	Usage	Page
A/V series	WEL-RF401	Power & *Data Comm.	10
	WEL-RF303	*Data Comm.	9
J series	WEL-RF401	Power & *Data Comm.	10
	WEL-RF303	*Data Comm.	9
PA7/PV7	WEL-RF401	Power & *Data Comm.	10
	WEL-RF303	*Data Comm.	9
S7 PLUS	WEL-RF401	Power & *Data Comm.	10
	WEL-RF303	*Data Comm.	9
S6 & S7	WEL-RF401	Power & *Data Comm.	10
	WEL-RF303	*Data Comm.	9
NBA	WEL-RF401	Power & *Data Comm.	10
	WEL-RF303	*Data Comm.	9
TAO Light	WEL-RF401	Power & *Data Comm.	10
	WEL-RF303	*Data Comm.	9
RS232 to VCCS Converter Board	WEL-RF401	Power & *Data Comm.	10
	WEL-RF303	*Data Comm.	9
GP-58 I & GP-58 III	WEL-RF401	Power & *Data Comm.	10
	WEL-RF303	*Data Comm.	9

*Data Comm. : Data Communication.

Table.3

Model	Harnesses	Usage	Page
NK	WEL-RCC42-K	Power & *Data Comm.	11
	WEL-RF303	*Data Comm.	9
K series	WEL-RCC42-K	Power & *Data Comm.	11
	WEL-RF303	*Data Comm.	9
E series	WEL-RCC42-K	Power & *Data Comm.	11
	WEL-RF303	*Data Comm.	9
U series	WEL-RCC42-K	Power & *Data Comm.	11
	WEL-RF303	*Data Comm.	9
UF series	WEL-RCC42-K	Power & *Data Comm.	11
	WEL-RF303	*Data Comm.	9
NV68/NV72	WEL-RCC42-K	Power & *Data Comm.	11
	WEL-RF303	*Data Comm.	9
P70/77/85	WEL-RCC42-K	Power & *Data Comm.	11
	WEL-RF303	*Data Comm.	9
CSD	WEL-RCC42-K	Power & *Data Comm.	11
	WEL-RF303	*Data Comm.	9
CVD	WEL-RCC42-K	Power & *Data Comm.	11
	WEL-RF303	*Data Comm.	9
MH	WEL-RCC42-K	Power & *Data Comm.	11
	WEL-RF303	*Data Comm.	9

*Data Comm. : Data Communication.

Table.4

Model	Harnesses	Usage	Page
ND series	WEL-RF403	Power & *Data Comm.	12
	WEL-RF303	*Data Comm.	9

Table.5

Model	Harnesses	Usage	Page
KCT	3TM-RAA251-K1-02	Power & *Data Comm.	13
	WEL-RF303	*Data Comm.	9
Coin Dispenser	3TM-RAA251-K1-02	Power & *Data Comm.	13
	WEL-RF303	*Data Comm.	9
BCA	3TM-RAA251-K1-02	Power & *Data Comm.	13
	WEL-RF303	*Data Comm.	9

Table.6

Model	Harnesses	Usage	Page
LV77	WEL-RLV7719	Power & *Data Comm.	14
	WEL-RF303	*Data Comm.	9

Table.7

Model	Harnesses	Usage	Page
Coin Changer	WEL-RCC42-K	Power & *Data Comm.	11
	WEL-RF303	*Data Comm.	9

*Data Comm. : Data Communication.

Figure 3

Figure .4

Figure.5

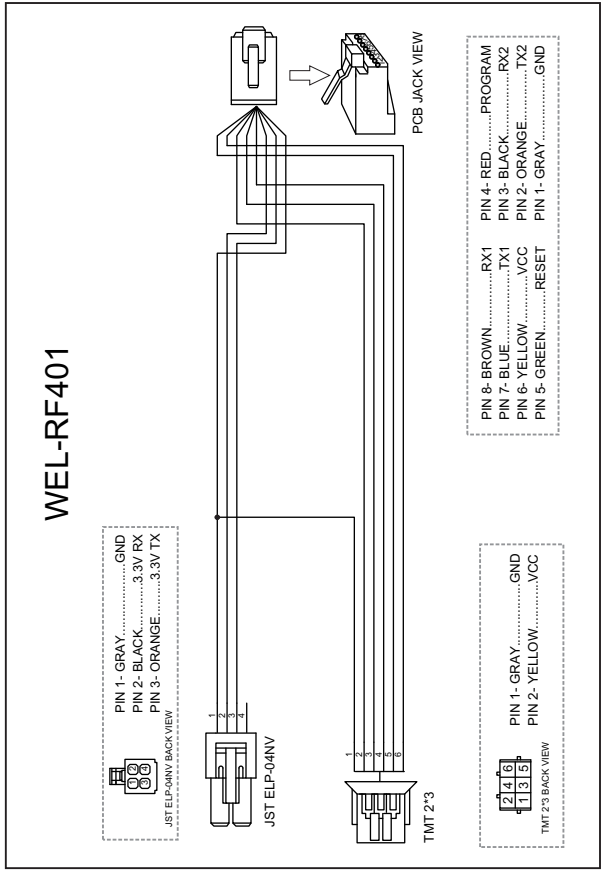


Figure.6

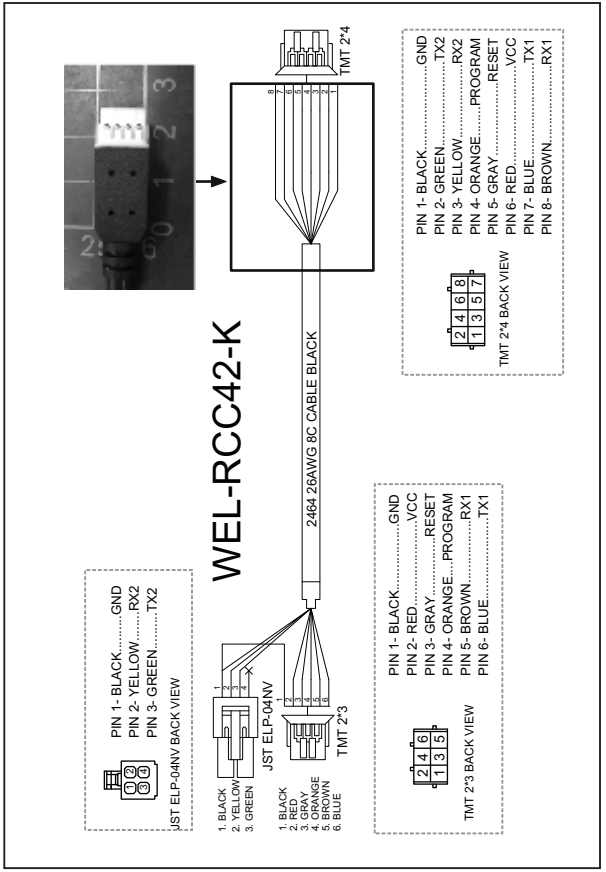


Figure.7

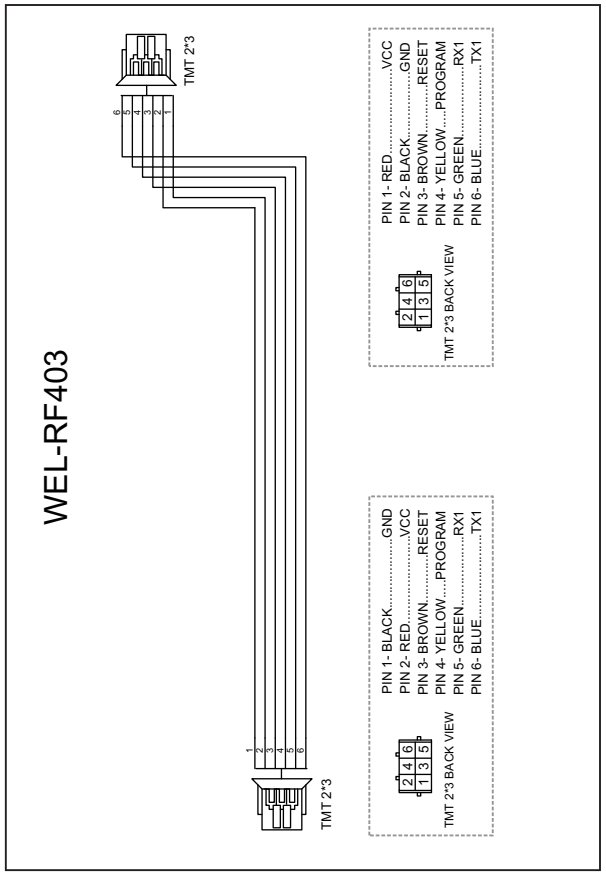


Figure.8

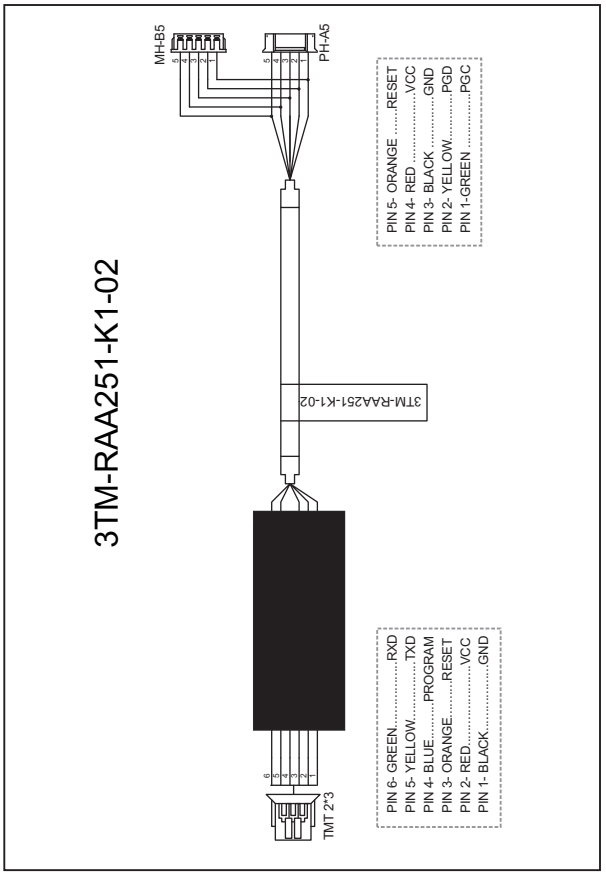
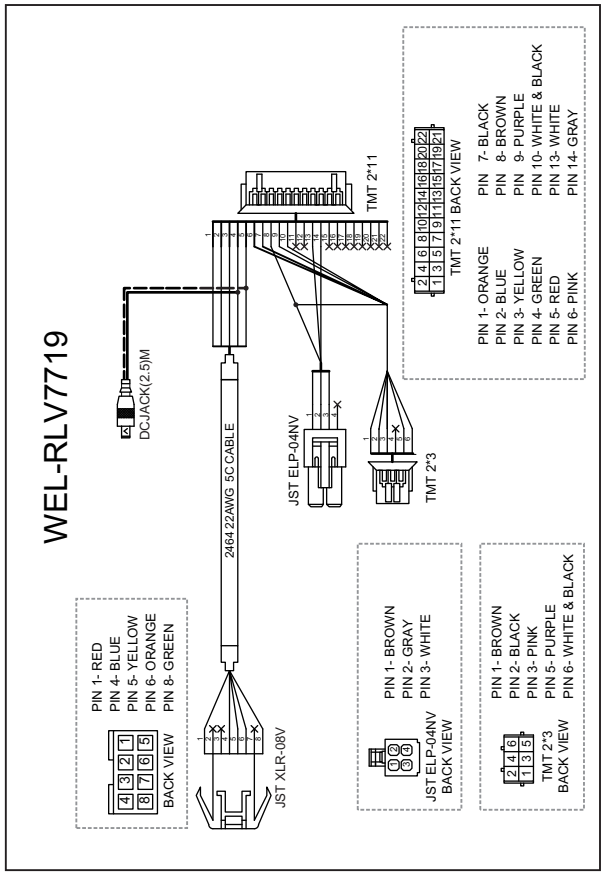


Figure.9



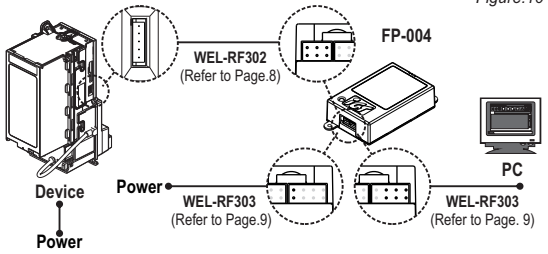
2-2. Direct Downloading **<PC ➡ Device>**

Step 1 : Connection

⊙ For BA (SV7E, V series, L series, S7ER, R83, TAO series (TAO-A/V), S7A/V7A & L77F).

For Non-BA (UCA series, Fortune)

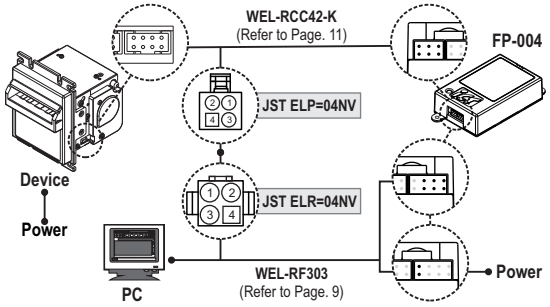
Figure.10



⊙ For BA (NK, K, E, U, UF Series , NV68/NV72, & P70/P77/P85).

For Non-BA (CSD, CVD & MH).

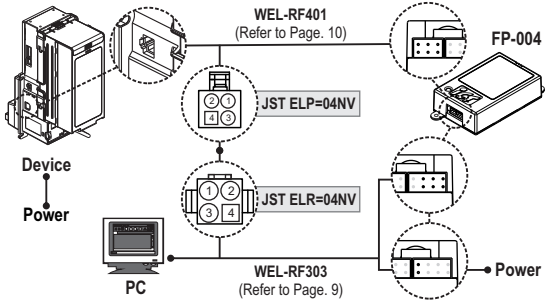
Figure.11



⊙ For BA (A/V Series, J Series, PA7/ PV7, S7 Plus, S6, S7, NBA & TAO Light).

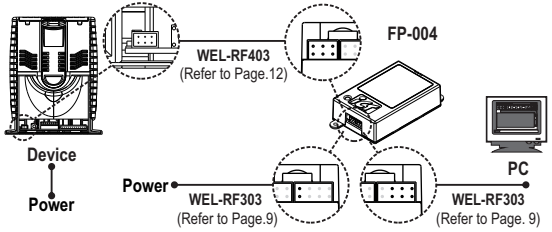
For Non-BA (RS232 to VCCS Converter Board & GP-58 I, GP58 III).

Figure.12



⊙ For Non-BA (ND Series).

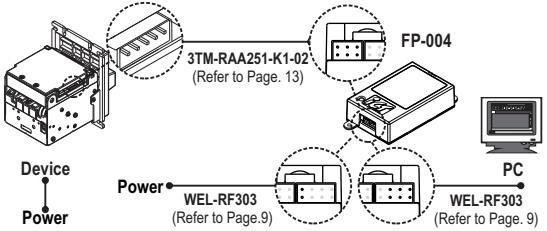
Figure.13



⊙ For BA (KCT).

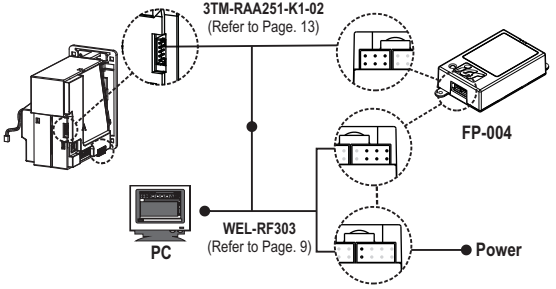
For Non-BA (Coin Dispenser).

Figure.14



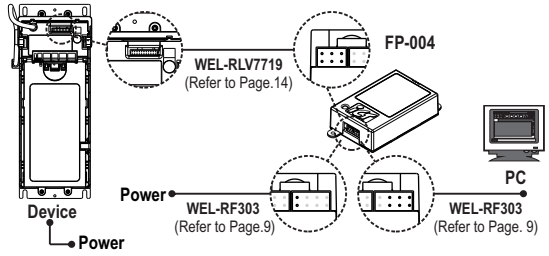
⊙ For Non-BA (BCA).

Figure.15



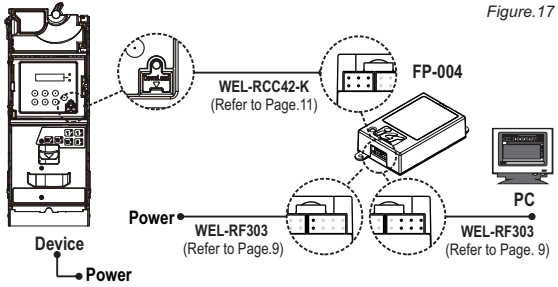
⊙ For BA (LV77).

Figure.16



⊙ For Non-BA (Coin Changer).

Figure.17



1. Power must be applied to device after connection.
2. Please refer to BA or Non-BA installation Guides for precise connector locations.

Step 2 : Launch software FP-003 PLUS / FP-004. Download FP-003 PLUS / FP-004 from ***http://www.ictgroup.com.tw/*** ➡ support

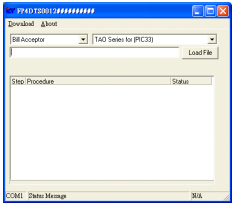
Step 3 : Use notepad to edit file “FP-004x.INI”. The com port setting varies according to the connection on PC.

Figure.18

```
[COM PORT SETTING]
PORT=COM1
BAUD=115200
DATA=8
STOP=1
PARITY=E
```

Step 4 : Select the appropriate model under bill acceptor type.

Figure.19



<PC ➡ Device>

Step 5 : Retrieve the firmware path.
(Drag the firmware **(hex file)** into FP-004 window.)

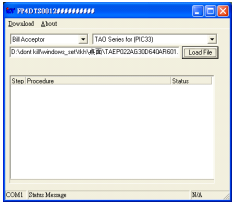


Figure.20

Step 6 : Download firmware to target through FP-004.

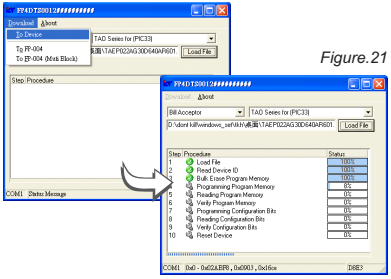


Figure.21

Step 7 : Complete downloading.
Firmware is saved in FP-004 now.

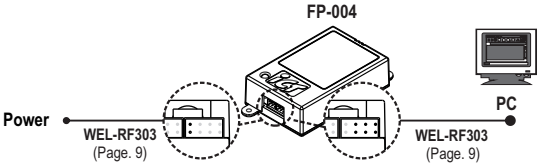
2-3. Indirect Downloading:

< PC ➡ FP-004 ➡ Device >

PC ➡ FP-004

Step 1 : Connection

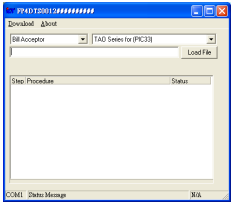
Figure.22



Power must be applied to FP-004 after connection.

Step 2 : Execute FP-004 download tool "FP4DT-exe".

Step 3 : Use notepad to edit file "FP-004x.INI". The com port setting varies according to the connection on PC.



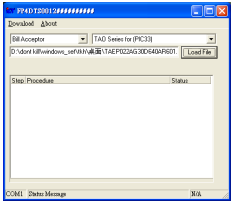
```
[COM PORT SETTING]
PORT=COM1
BAUD=115200
DATA=8
STOP=1
PARITY=E
```

Figure.23

PC ➡ FP-004

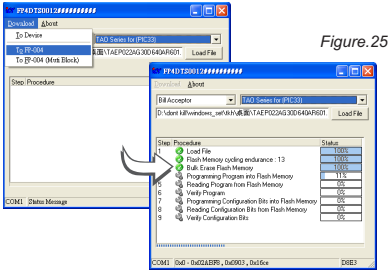
Step 4 : Select the appropriate model under bill acceptor type.

Figure.24



Step 5 : Choose “Download” and “To Fp004” to proceed program burning.

Figure.25



Step 6 : Complete downloading.
Firmware is saved in FP-004 now.

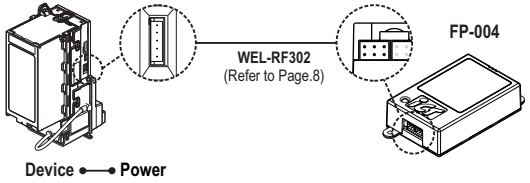
FP-004 ➡ Device

Step 1 : Connection

⊙ For BA (SV7E, V series, L series, S7ER, R83, TAO series (TAO-A/V), S7A/V7A & L77F).

For Non-BA (UCA), Fortune.

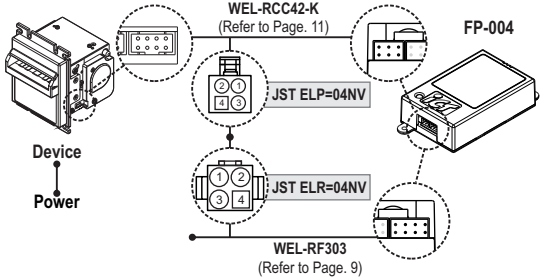
Figure.26



⊙ For BA (NK, K, E, U, UF Series , NV68/NV72 & P70/P77/P85).

For Non-BA (CSD, CVD & MH).

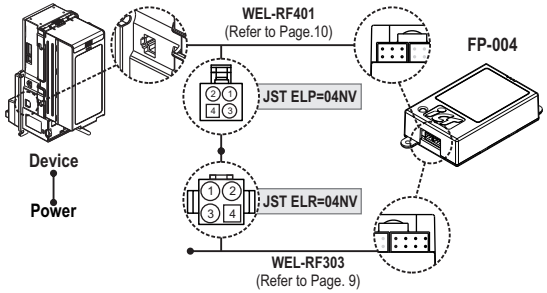
Figure.27



⊙ For BA (A/V Series, J Series, PA7/ PV7, S7 Plus, S6, S7, NBA & TAO Light).

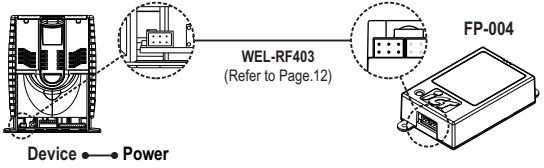
For Non-BA (RS232 to VCCS Converter Board & GP-58 I, GP58 III).

Figure.28



⊙ For Non-BA (ND Series).

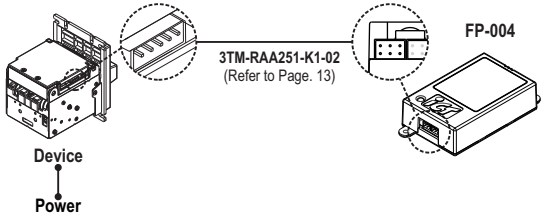
Figure.29



⊙ For BA (KCT).

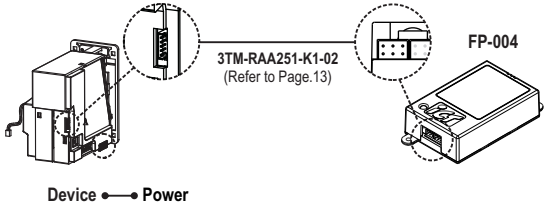
For Non-BA (Coin Dispenser).

Figure.30



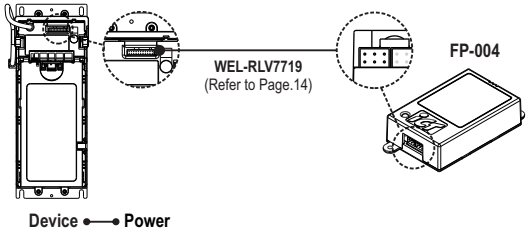
⊙ For Non-BA (BCA).

Figure.31



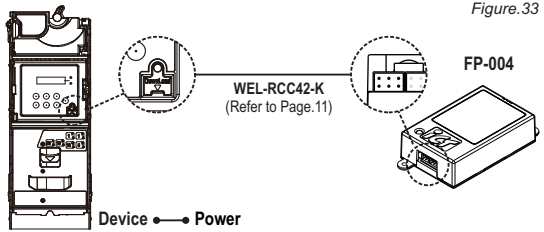
⊙ For BA (LV77).

Figure.32



⊙ For Non-BA (Coin Changer).

Figure.33



1. Power must be applied to device after connection.
2. Please refer to BA or Non-BA installation Guides for precise connector locations.

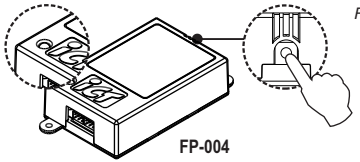
Step 2 : Start downloading a new firmware to Device.

Step 1: Press and hold the button for at least 3 seconds, and wait until the faceplate LED turns to purple.

Step 2: The faceplate LED will flash faster and faster as It's approaching the end of download progress.

Step 3: After downloading, the faceplate LED will indicate "Green" as successful downloading or "Red" as failed downloading in 3 seconds.

Figure.34



Note:
As downloading the firmware to Device in this mode, PC Tool shows the download progress automatically.

Step 3 : Complete indirect downloading.

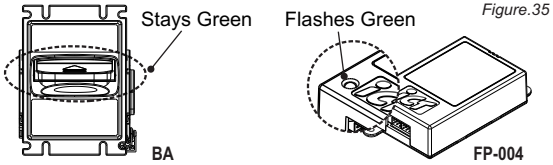
2-4. Sensor Calibration

Calibrate sensor of the Bill Acceptor with calibration card every time after download can keep high recognition rate. In addition to the regular bill acceptor calibration by connecting to PC, there is another option allows users to calibrate Bill Acceptor after indirect downloading without PC.

Please follow the steps below to calibrate BA:

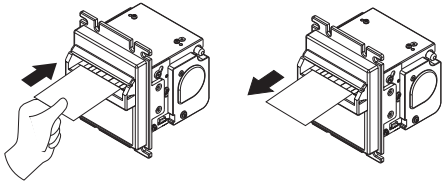
1. After download complete, FP-004 would be back to standby mode, and BA will be in white card calibration mode automatically (LED constantly stays green).

Figure.35



2. Insert white card in BA to calibrate.
3. White card will be rejected when calibrating succeed.

Figure.36



4. Restart BA after calibrating

3. LED Status :

Figure.37

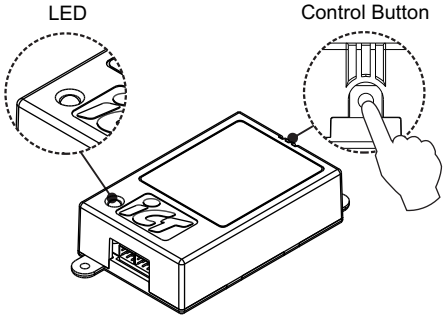


Table.8

Flashes		Mode	Status
Green	Flashing	Idling	FP-004 to Device Mode
	ON	Download	Download Successful
Blue	ON	Idling	PC to BA RS232 Mode
Yellow	ON	Idling	PC to BA Test Mode
Red	Flashing	Idling	Memory Problem
	ON	Download	Download Fail
Purple	ON	Download	Busy
	Flashing		Download in Progress

♦ Control Button:

1. Click to switch between PC and Device.
2. Press and hold three seconds to start downloading from FP-004 to Device.

Attachment Table 1

Table.9

BA Model Type	Models
A / V Series for (549)	A6, A7, V6, V7
V Series for (PIC33)	V7E, V77E
E Series for (549)	E77
H Series for (549)	H77
J Series for (549)	J830
K Series for (372)	K77
L Series for (PIC33)	L70, L83, L70#, L83#, L77F
N Series for (549)	N6, N7
NK Series for (487)	NK77
P Series for (549)	P70, P77, P85, PA7, PV7
S Series for (549)	S6, S7, S7 PLUS
S Series for (PIC33)	SV7E, S7ER
TAO Series for (PIC33)	TAO-A, TAO-V
TAO Light Series for (549)	TAO Light
U Series for (549)	U70, U77, U85
UF Series for (549)	B70UF, B77UF, B85UF
NV Series for (STM32)	NV68/NV72
NBA for (STM32)	NBA
KCT for (STM8S207)	KCT
LV77 for (PIC33)	LV77

Attachment Table 2

Table.10

Non-BA Model Type	Models
Coin Dispenser for (STM8S207)	Coin Dispenser
RS232 to VCCS Converter Board for (487)	RS232 to VCCS Converter Board
GP-58 I for (549)	GP-58 I
GP-58 III for (STM205)	GP-58 III
BCA for (STM8S207)	BCA
Ticket Printer for (PIC32)	Fortune
Coin Changer for (STM32)	Coin Changer

Please contact ICT for any other questions.

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